A B S T R A C T

A flexible substrate (110) having flexibility and a fixed substrate (120) disposed so as to oppose it are supported at their peripheral portions by a sensor casing (140). An oscillator (130) is fixed on the lower surface of the flexible substrate. Five lower electrode layers (F1 to F5: F1 and F2 are disposed at front and back of F5) are formed on the upper surface of the flexible substrate. Five upper electrode layers (E1 to E5) are formed on the lower surface of the fixed substrate so as to oppose the lower electrodes. In the case of detecting an angular velocity ω x about the X-axis, an a.c. voltage is applied across a predetermined pair of opposite electrode layers (E5, F5) to allow the oscillator to undergo oscillation Uz in the Z-axis direction. Thus, a Coriolis force Fy proportional to the angular velocity ωx is applied to the oscillator in the Y-axis. By this Coriolis force Fy, the oscillator is caused to undergo displacement in the Y-axis direction. As a result, the distance between opposite electrode layers (E3, F3) arranged in the positive direction of the Y-axis becomes smaller, and the distance between opposite electrode layers (E4, F4) arranged in the negative direction of the Y-axis becomes greater. Thus, capacitance value C3 increases and capacitance value C4 decreases. By change of the capacitance value, it is possible to detect the magnitude

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of the Coriolis force Fy, and to determine angular velocity ωx. Similarly, it is possible to detect an angular velocity ωy about the Y-axis and an angular velocity ωz about the Z-axis.